

# Work Order ID 53799

November 18, 2009 12:44:09 PM



Page 1

Item ID: D3407-1

Accept



Setup Start



Revision ID: E

Stop



Item Name: Stem

Start Date: 18/11/2009 Start Qty: 20.00



Cust Item ID:

Required Date: 25/11/2009 Req'd Qty: 20.00



Customer:

Reference:

Run Start



Approvals:

Process Plan: *PL*

Date: *09/11/12*

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr

Revision Nbr

D3407

Rev E

100

0.00



DOOSAN LATHE

Doosan

Memo

0.00

Doosan Lathe

1-Turn as per Folio FA96 Rev: *E* & Dwg D3407 Rev: *E* ☐ 2-Deburr *SL*

*20*

110

0.00



QC2- Inspect parts off machine FAI/FAIB

QC

Memo

0.00

Quality Control

*SL 09/12/12*

120

0.00



QC8- Inspect parts - second check

QC

Memo

0.00

Quality Control

*SL 10/01/15*  
*SL 09/12/12*

*20*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3407-1 PAR #: N/A Fault Category: Machine NCR: Yes No DQA: 10 Date: 10.01.19  
 Resolution: Re-work Disposition: Re-work QA: N/C Closed: 10/01/26 Date: 10/01/26

NCR: 53799		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
09.12.17	100	FLATS MACHINED ON WRONG QUADRANTS.	CP 09.12.14 PC 05/04/2	MACHINE FLATS IN CORRECT LOCATION. ACCEPTABLE WITH RE-MACHINING, PART BEARS GROUND LOADS ONLY.	SL 10/01/15 SP 10/01/26	CP 09.12.14 PC 05/04/2	S 10/01/18	
		R.C program error and lack of attention of operator						

NOTE: Date & initial all entries

**Work Order ID 53799**

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Page 2

Item ID: D3407-1

Accept



Setup Start



Revision ID: E

Stop



Item Name: Stem

Start Date: 18/11/2009 Start Qty: 20.00



Cust Item ID:

Required Date: 25/11/2009 Required Qty: 20.00



Customer:

Reference:

Run Start



Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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130	Identify as per dwg & Stock Location: <u>EL</u>	0.00							
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Packaging

Memo

0.00

Packaging

10-1-18

SP

(50)

140	QC21- Final Inspection - Work Order Release	0.00							
-----	---	------	--	--	--	--	--	--	--



QC

Memo

0.00

Quality Control

10/01/18

MF

10-1-18

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

November 18, 2009 12:44:15 PM

Page 1

Work Order ID: 53799



Parent Item: D3407-1RevE



Parent Item Name: Stem

Start Date: 18/11/2009

Required Date: 25/11/2009

Comments:

Start Qty: 20.00

Required Qty: 20.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
M174R0.750		Purchased	No			100	f	18.6500	7.7053			

17-4 round bar .750

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

MAT

18.65

110777

12.25

112998

6.4

M113340

7.705 SL 09/12/10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

<b>DART AEROSPACE LTD</b>		<b>Work Order:</b>	53799
<b>Description:</b> Tow Ring		<b>Part Number:</b>	D3407-1
<b>Inspection Dwg:</b> D3407	<b>Rev:</b> E	<b>Page 1 of 1</b>	

### FIRST ARTICLE INSPECTION CHECKLIST

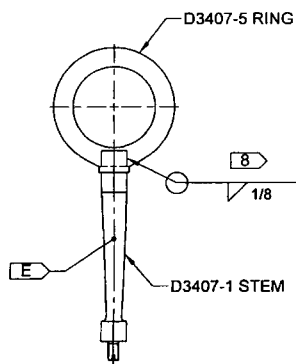
☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.063	+/-0.010	.070	✓			
1/4-28 UNF	Max: 0.2668 Min: 0.2635	.2655	✓			
Major Ø	Max: 0.249 Min: 0.2425	.247	✓			
Ø0.625	+/-0.010	.624	✓			
Ø0.363	+/-0.010	.363	✓			
Ø0.750	+/-0.010	.750	✓			
R0.100	+/-0.010	.100	✓			
0.470	+/-0.010	.469	✓			
0.500	+/-0.010	.501	✓			
3.250	+/-0.010	3.250	✓			
4.250	+0.000/-0.010	4.247	✓			
5.270 -	+/-0.010	5.271	✓			
0.150 -	+/-0.010	.147	✓			
0.550 -	+/-0.010	.548	✓			
0.625 -	+/-0.010	.625	✓			
0.250 -	+0.010/-0.000	.253	✓			

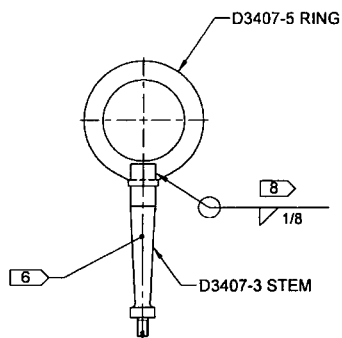
<b>Measured by:</b>	JL	<b>Audited by:</b>	8F	<b>Prototype Approval:</b>	N/A
<b>Date:</b>	09/12/12	<b>Date:</b>	10/01/15	<b>Date:</b>	N/A

Rev	Date	Change	Revised by	Approved
A	06.09.19	New Issue	KJ/JLM	
B	07.07.18	Tolerances for diameters updated per Machinists	KJ/JLM	
C	08.05.14	Dimensions updated per Dwg Rev D	KJ/JLM	
D	08.10.07	Dimensions updated per Dwg Rev E	KJ/DD	

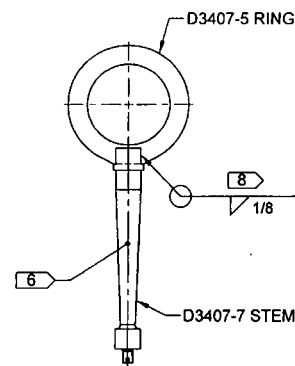
QTY -041	QTY -043	QTY -045	PART NUMBER	DESCRIPTION
X			D3407-041	TOW RING
	X		D3407-043	TOW RING
		X	D3407-045	TOW RING
1			D3407-1	STEM
	1		D3407-3	STEM
1	1	1	D3407-5	RING
		1	D3407-7	STEM



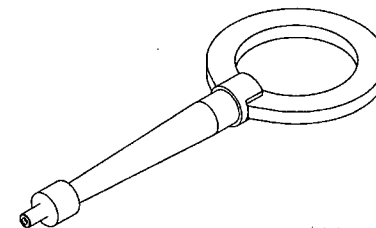
**D3407-041 TOW RING**



**D3407-043 TOW RING**



**D3407-045 TOW RING**



NO 53799  
BROG-11-18

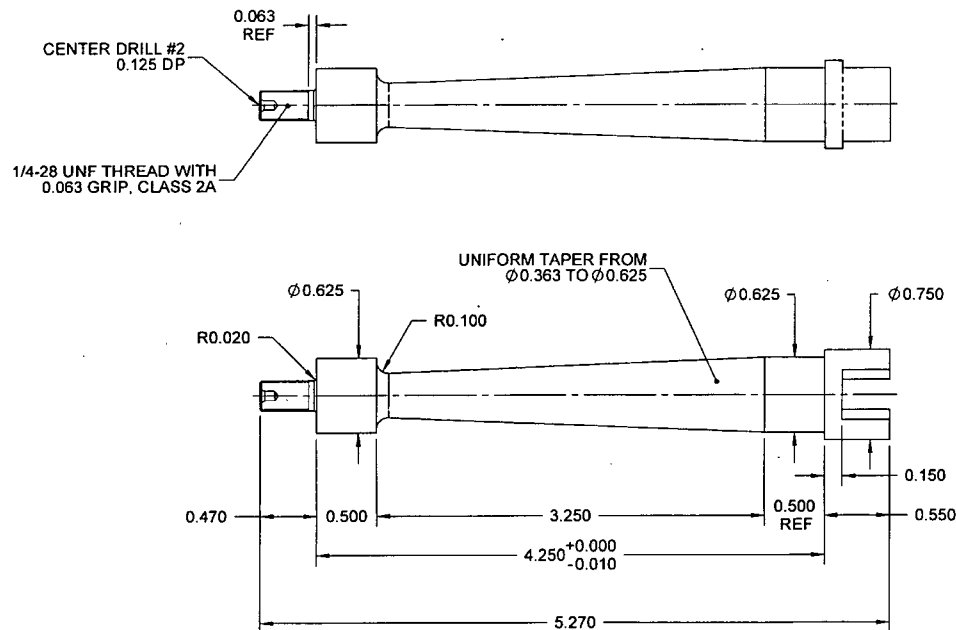
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07-08-2018

**NOTES:**

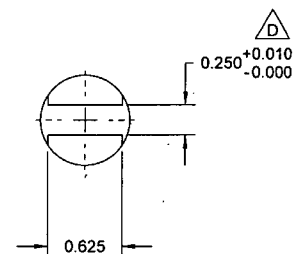
- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT WHITE (4.3.5.2) PER DART QSI 005 4.3 (EXCEPT THREADS)
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3407-XXX" USING BLACK FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: D3407-041 - 0.60 lbs, D3407-043 - 0.53 lbs, D3407-045 - 0.61 lbs
- 8) WELD PER DART QSI 004 ON ALL EDGES BETWEEN STEM AND RING

E	ADD D3407-045 (ZN B2-1, D8-1); ADD D3407-7 (ZN B6-5); REVISED NOTE 6 TO ADD IDENTIFICATION (ZN A5-1); REASON: PRODUCTION FACILITY	PH	08.07.23
D	D3407-1/-3 SLOT WAS ROUND NOW FLAT FOR ASSEMBLY WITH D3407-5 (ZN C2-2, C2-3); D3407-5 WAS ROUND NOW FLAT ON ONE END FOR ASSEMBLY WITH D3407-1/-3 (ZN B6-4); REASON: PRODUCTION FACILITY	PH	08.04.07
C	-1/-3 LONGER FOR FIT W/WASHER	CP	05.09.09
B	UPDATE DIAMETER, THREAD CLASS ADDED	CP	05.06.17
A	NEW ISSUE	CP	05.03.16
REV.	DESCRIPTION	BY	DATE
DESIGN		<b>DART AEROSPACE USA, INC.</b> PORT HADLOCK, WA DRAWING NO. <b>D3407</b> TITLE <b>TOW RING</b> REV. E SHEET 1 OF 5 SCALE NTS COPYRIGHT © 2005 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	
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CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	08.07.23		





**D3407-1 STEM**

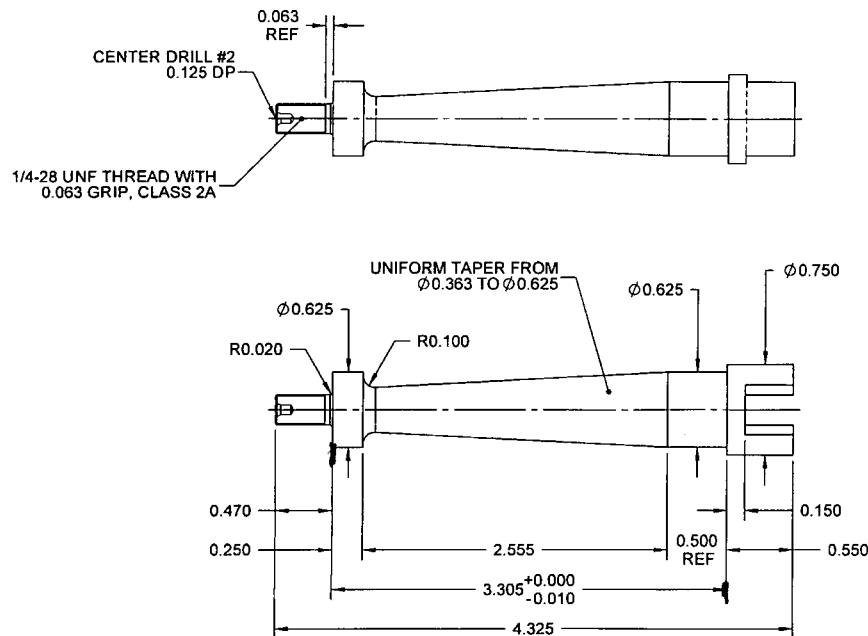


DESIGN	JP	DART AEROSPACE USA, INC.	
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CHECKED		DRAWING NO.	REV. E
MFG. APPR.	JPL	D3407	SHEET 2 OF 5
APPROVED	inf	TITLE	SCALE
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- NOTES:
- 1) MATERIAL: 17-4 PH SS ROUND BAR PER AMS 5643 (REF. DART SPEC M17-4-R)
  - 2) FINISH: NONE
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: MACHINE ALL INSIDE EDGES WITH A 0.010 RADIUS
  - 6) IDENTIFICATION: N/A
  - 7) WEIGHT: 0.33 lbs

**RELEASED**

W10 53799



**D3407-3 STEM**

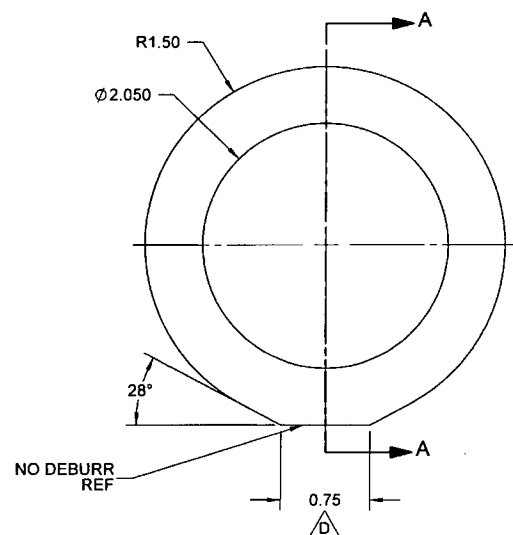
**NOTES:**

- 1) MATERIAL: 17-4 PH SS ROUND BAR PER AMS 5643 (REF. DART SPEC M17-4-R)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: MACHINE ALL INSIDE EDGES WITH A 0.010 RADIUS
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.27 lbs

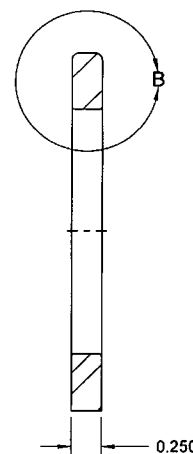
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01-03-01 11:18

*w/0 53799*

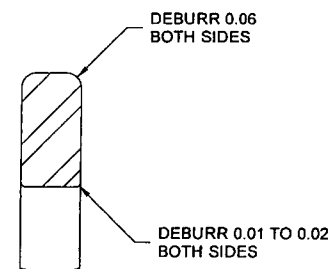
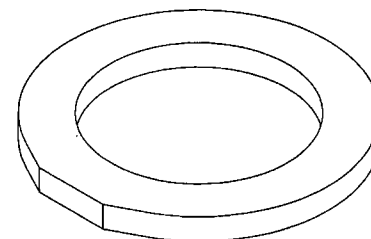
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MFG. APPR.	<i>JP</i>		SHEET 3 OF 5
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**D3407-5 RING**



**SECTION A-A**



**DETAIL B  
SCALE 2X**

- NOTES:**
- 1) MATERIAL: 17-4 PH SS BAR PER AMS 5604/5643 (REF. DART SPEC M17-4-B)
  - 2) FINISH: NONE
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: N/A
  - 6) IDENTIFICATION: N/A
  - 7) WEIGHT: 0.27 lbs

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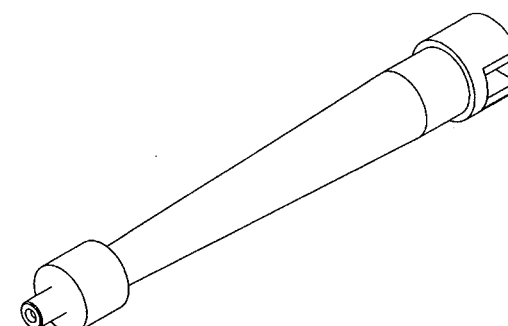
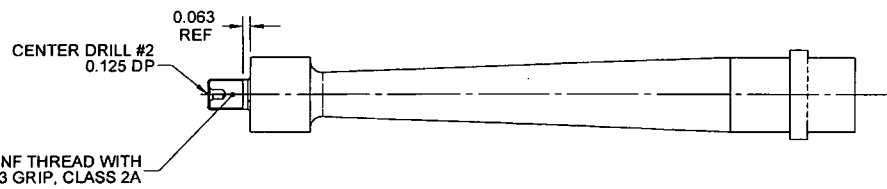
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06-06-01-118

*wlo 53799*

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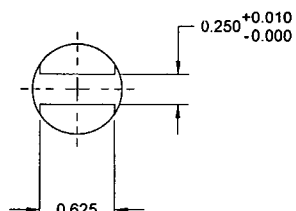
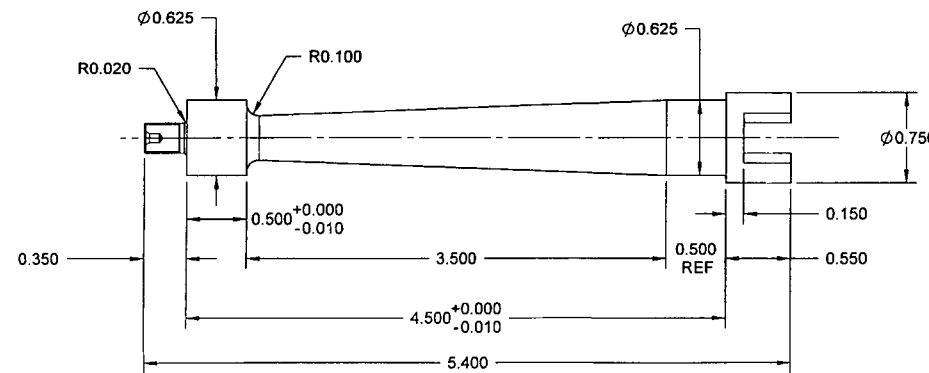
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


**D3407-7 STEM**

**RELEASED**

W10 53799

- NOTES:
- 1) MATERIAL: 17-4 PH SS ROUND BAR PER AMS 5643 (REF. DART SPEC M17-4-R)
  - 2) FINISH: NONE
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: MACHINE ALL INSIDE EDGES WITH A 0.010 RADIUS
  - 6) IDENTIFICATION: N/A
  - 7) WEIGHT: 0.34 lbs

DESIGN	AJS	<b>DART AEROSPACE USA, INC.</b>	
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CHECKED		DRAWING NO.	REV. E
MFG. APPR.		D3407	SHEET 5 OF 5
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8 7 6 5 4 3 2 1